Remarks / Arguments

Report of the amendments to the claims

-In claim 9 the one pulse option has been stricken through.
-The dependent Claims 13 and 14 have been amended to incorporate the new form of the packet switching methods as claimed in amended independent claims 22 and 24.
-The independent claim 20 has been amended and voluntarily made highly specified.
-The independent claim 22 has been amended and voluntarily made highly specified, what also necessitated adding a new independent claim 26 to have adequate claim coverage, as it represents a variation of the method in claim 22.
-In claim 24 the inter-packet referencing technique has been retained and written anew to be more accurate. The technique is clearly different than the Chin invention PTID adoption technique or prior art packet signaling techniques which do not make any concrete identifying reference to another packet, see additional arguments further below.
-The claims 21, 23 and 25 have been canceled.

Patentability arguments

Arguments for the method of claim 20

I have written the claim 20 anew to be more accurate and to emphasize the method's special utility in segregated routing according to packet properties which are not related to the packet's delivery address. The method comprises node computers routing the received packets which have a same intermediate or final delivery address so that they will go through different dedicated routes according to the packet's source address, content type or other properties which do not constitute a delivery address or a reference to a delivery address; the method being used as a supplement alongside with the normal delivery address based routing. In the method the node computer reads the property from the packet and appoints to the packet a suitable dedicated route. Thus the examiner's objection relating to the prior art address identifiers or address tags is not a valid argument, because that falls into the category of delivery address based switching what is not what is claimed here, and the claim is amended to avoid any misconceptions, so for obvious reasons the supplement routing method here does not use packet properties which constitute a delivery address or a reference to a delivery address, like a path identifier in Chin invention (USPN 5,872,783).

Conclusion:
The claim has been written anew to be highly specified, and as pointed out the examiner's argument was based on superficial wording rather than relating to the true matter and focus of the claimed invention. Therefor there is no reason to reject claim 20.

Arguments for the method of claim 22

I have made the claimed method more accurate and highly specified to make clear what kind of reference is being made to the referred packets. The claim text emphasizes now that the referring packet contains a concrete explicit reference to the referred packets so that they are individually distinguished, and that the referred packets don't have a same delivery address, and that the referred packets are mutually interleaved according to their plurality of different delivery addresses, and that the interleaving pattern is specified by the referring packet, and that also the delivery addresses of the referred packets are individually distinguished.

The examiner's objection relating to Jimmei invention's (USPN 6,614,795) trigger packet technique falls out of context, because a trigger packet announces apparition of the subsequent packets by its own apparition, not by a packet contained direct reference to the referred packets, like in my invention. Jimmei invention cut-through packet train / traffic is meant to follow the trigger packet, my invention instead uses explicit referring to packets which have plurality of different destinations and which are switched to plurality of output ports by a node computer. Jimmei invention trigger packet is not used even as a signal packet for the arrival of a continuous packet train to a certain delivery address, it is only used to open a cut-through connection or route over certain nodes for the traffic which goes intermittently to a certain delivery address. The purpose of that Jimmei invention technique is to have less delay for the nodes in finding the addresses of the subsequent nodes in a packet's route and to have certain allocated transfer capacity readily available for a certain route, it has nothing to do with the switching of the packets, there is no intention to extend the normal switching procedure of packets where each packet's delivery address is read before the switching. Actually the trigger packet itself is not intended to guide the establishing of the cut-through connection so that it would be written with information which would identify the packet to be a trigger packet, it is the routers which decide if a packet is a trigger packet, so there is no kind of packet guided group-switching used in Jimmei invention.

Jimmei invention even less has individual distinguishing for the subsequent packets, my invention uses explicit referring which individually distinguishes the referred packets and also their delivery addresses. Jimmei invention does not intend to use and does not need any specifying of the interleaving pattern of the packets, my invention specifies the interleaving pattern for the referred packets. The examiner's argument was insubstantial even before the amendment, because the Jimmei invention trigger packet is not designed to physically contain occurrence information of the following packets, even less occurrence information about certain packets with certain delivery addresses or other properties.

Prior art packet signaling techniques which announce the apparition of a cue of packets with a signal packet also fall out of context for the reasons stated above. Explicit referring by concrete pointing is clearly different technique than implicit referring by cue start signaling, for example computer programming art recognizes explicit data pointing and data field start signaling as different techniques which have unique applications.

Conclusion:
The claim has been written anew to be highly specified, and as pointed out the examiner's argument was insubstantial even before the amendment. Therefor there is no reason to reject claim 22.

Arguments for the method of claim 24

I have retained the inter-packet referencing technique in claim 24 and made its definition more accurate so that there would be no misconceptions. The claimed method uses a direct reference written in a packet which individually distinguishes the referred packet and specifies its location, the reference being read by a node computer which uses it to locate the referred packet. The examiner cited Chin invention technique of a packet containing a path identifier which refers to an inbound table is clearly different than a packet to packet explicit referring here. The Chin invention technique does not make any explicit packet to packet referring, there is not even an indirect packet to packet referring through the inbound table because the inbound table referring is meant to serve the packet's own switching, and does not include referring to other packets, even less distinguishing the individual locations or delivery addresses of other packets. The examiner cited Chin patent text on col 5 lines 42-53 describes only a procedure of a learning switch adopting to use a certain PTID value instead for a specific link-level destination address of a packet, and the adoption is realized to the subsequent packets not by the advice of a packet but by the advice of an interpreting switch which notices a packet which link-level destination address has not been assigned an own PTID; therefor there is not even packet contained advice on how to treat other packets, even less is there a packet contained reference to another packet. The Chin technique does not make a direct reference in a packet to another packet like in my invention, it is only a procedure of the switches to learn the use of a new PTID value what has nothing to do with direct inter-packet guiding of the switching.

Neither the packet signaling inventions, or the Jimmei invention use of a trigger packet in establishing a cut-through connection, use any concrete explicit referring to the subsequent packets or from the subsequent packets backwards, only implicit referring by packet signaling where the signal packet does not individually distinguish or locate the individual following packets. As already explained earlier, explicit referring by concrete pointing is clearly different technique than implicit referring by cue start signaling, for example computer programming art recognizes explicit data pointing and data field start signaling as different techniques which have unique applications.

In the claimed method the referring packet is switched by the node computer according to a certain property of the referred packet, or alternatively the referred packet is switched according to a certain property of the referring packet. The reference being made is an explicit and direct packet to packet reference, contained by the other packet, so the examiner referred inventions like the Chin invention are clearly different to my invention.

Conclusion:
The claim has been written anew to be highly specified, and as pointed out the examiner referred to a distinctly different prior invention. Therefor there is no reason to reject claim 24.

Arguments for the method of claim 26

In the claimed method an informant packet traveling among the packet traffic contains information which specifies the pattern according to which the individual packets of a dispersed group of packets in the same packet traffic are interleaved with other packets of the packet traffic, the information individually distinguishing the dispersed packets of that group. The method makes a concrete explicit reference in a packet to the referred packets distinguishing the referred packets individually and specifying their dispersion pattern. As thoroughly demonstrated in my argumentation for the claims 22 and 24, the explicit inter-packet referring used here is not found in the examiner cited prior art what covers only simplistic methods where no direct packet to packet reference is made, like the use of a signal packet. Besides the referring here is done for a dispersed group of packets which individual packets are interleaved among the other packets of the packet traffic, what is a novel technique. The examiner listed prior art do not either describe specifying dispersion pattern of packets, even less the specific way it is done in my invention.

Conclusion:
The claimed method is a highly specified novel variation of the novel method in claim 22. Therefor there is no reason to reject claim 26.

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